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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/556,391	11/10/2005	Yuki Togashi	ITO-102-PCT	6265
28892	7590	10/30/2006	EXAMINER	
SNIDER & ASSOCIATES P. O. BOX 27613 WASHINGTON, DC 20038-7613			CYGAN, MICHAEL T	
			ART UNIT	PAPER NUMBER
			2855	

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

5/K

Office Action Summary	Application No. 10/556,391	Applicant(s) TOGASHI ET AL.	
	Examiner Michael Cygan	Art Unit 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/10/2005</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 2, 5, and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Dales (US 6,759,014 B2). Dales discloses the claimed invention, a sample injection apparatus comprising sampling vessel (in rack [21]), sampling needle [21], cleaning part [25] having ultrasonic vibrator [141], sample injection part [45] which injects sample into sample injection port of a reaction chamber [9M] having liquid in motion due to the influence of a stirrer [171], and needle transfer means [305,307] for transferring the needle from the vessel, cleaning part, and injection port. See Figure 3 and columns 7-8. The needle may have an inside diameter of 0.01 in, which is 0.254 mm, which is between 0.1 and 0.8 mm. Dales further discloses the method of aspirating the sample from the vessel into the needle (column 18 line 48 through column 19 line 12), ejecting the sample from the sampling needle into the stirred liquid (column 19 lines 51-62), holding the remaining sample in the needle and dipping the needle in cleaning liquid (column

20 lines 27-42, and actuating the ultrasonic device (column 7 lines 53-65). Note that no order of the operation of the steps is positively recited in the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dales (US 6,759,014 B2) in view of Glucksman (US 2003/0131869 A1). Dales teaches the claimed invention except for a vibration buffer. Glucksman teaches the use of a vibration buffer on an ultrasonic cleaner (abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a vibration buffer as taught by Glucksman in the invention taught by Dales

to isolate the vibrating parts, since Glucksman teaches that this prevents noise and translational motion ("walking") of the cleaner (paragraph 0016).

3. Claims 3 and 6 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dales (US 6,759,014 B2) and "B3 Ultrasonic Cleaner". Dales discloses the claimed invention except for a vibrational frequency of between 20kHz and 80kHz. Dales discloses that a Branson Ultrasonics B3-R cleaner is used. The Branson B3 cleaner is disclosed by "B3 Ultrasonic Cleaner" to operate at 55 kHz. It thus appears that Dales reference discloses operation at 55 kHz.

Alternatively, it would have been obvious to operate the invention of Dales at between 20kHz and 80kHz, since it has been held that determining the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

4. Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dales (US 6,759,014 B2) in view of Tatsumi (JP 11-304779). Dales teaches the claimed invention except for application to a liquid chromatography apparatus having mobile phase reservoir, separation column, and detector. Each of these features are inherent and necessary to the operation of a liquid chromatograph. Tatsumi teaches the cleaning of a needle by ultrasonics in the context of a liquid

chromatograph having mobile phase [8], column [14] (and inherently, a detector); see paragraphs 14, 15, 21, and 22. It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the liquid chromatograph of Tatsumi in the invention taught by Dales to form the system to be cleaned, since Tatsumi teaches that liquid chromatographs benefit from ultrasonic cleaning performed quickly (paragraphs 4-6), and this would advantageously extend the applicability of the system of Dales beyond sample mixing to sample analysis.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dales (US 6,759,014 B2) in view of Tatsumi (JP 11-304779), further in view of Glucksman (US 2003/0131869 A1). Dales teaches the claimed invention except for a vibration buffer. Glucksman teaches the use of a vibration buffer on an ultrasonic cleaner (abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a vibration buffer as taught by Glucksman in the invention taught by Dales to isolate the vibrating parts, since Glucksman teaches that this prevents noise and translational motion ("walking") of the cleaner (paragraph 0016).
6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dales (US 6,759,014 B2) in view of Tatsumi (JP 11-304779), further in view of "B3 Ultrasonic Cleaner". Dales discloses the claimed invention except for a

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vibrational frequency of between 20kHz and 80kHz. Dales discloses that a Branson Ultrasonics B3-R cleaner is used. The Bransonic B3 cleaner is disclosed by "B3 Ultrasonic Cleaner" to operate at 55 kHz. It thus appears that Dales reference discloses operation at 55 kHz.

Alternatively, it would have been obvious to operate the invention of Dales at between 20kHz and 80kHz, since it has been held that determining the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cygan whose telephone number is (571) 272-2175. The examiner can normally be reached on 8:30-6 M-Th, alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MICHAEL CYGAN, PH.D.
PRIMARY EXAMINER